

WHAT IS CLAIMED IS:

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1. A toroidal-type continuously variable transmission component comprising:

5 a rolling member made of steel and having a layer formed at 0.4 mm or less from the surface thereof,

wherein the layer does not contain non-metallic inclusion having the maximum diameter of 0.115mm or more.

10 2. The toroidal-type continuously variable transmission component according to claim 1, wherein the maximum diameter of non-metallic inclusion disposed within the layer is less than 0.115mm.

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15 3. The toroidal-type continuously variable transmission component according to claim 2, wherein rolling member is at least one of an input disk, an output disk, an inner ring of a power roller bearing, and an outer ring of the power roller bearing which are constituting said toroidal-type continuously variable transmission.

20 4. A toroidal-type continuously variable transmission component comprising:

a rolling member made of steel and having a layer formed at 0.5 mm or less from the surface thereof,

25 wherein the layer does not contain non-metallic inclusion having the maximum diameter of 0.1mm or more.

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5. The toroidal-type continuously variable transmission component according to claim 4, wherein the maximum diameter of non-metallic inclusion disposed within the layer is less than 0.1mm.

6. The toroidal-type continuously variable transmission component according to claim 5, wherein rolling member is at least one of an input disk, an output disk, an inner ring of a power roller bearing, and an outer ring of the power roller bearing which are constituting said toroidal-type continuously variable transmission.

7. A method for evaluating a toroidal-type continuously variable transmission component having a steel rolling member, said method comprising:

disposing a desired surface of said rolling member to be measured and an ultrasonic detection probe within an ultrasonic wave transmissive medium;

transmitting an ultrasonic wave, having a frequency in the range of 5 MHz - 30 MHz, from said ultrasonic detection probe to said rolling member through said ultrasonic wave transmissive medium; and

detecting and evaluating a non-metallic inclusion existing in the area of 0.5 mm or less from said desired surface of said rolling member in accordance with an ultrasonic echo

reflected by said rolling member;

disqualifying said rolling member when thus detected non-metallic inclusion has the maximum diameter of 0.1 mm or more.

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8. The method according to claim 7, wherein said ultrasonic wave is transmitted to said rolling member according to at least one of an oblique defect detect method and a vertical defect detect method.

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9. The method according to claim 7, wherein said oblique defect detect method is performed under the condition that an incident angle with respect to said desired surface of said rolling member is in a range of 10 degree to 30 degree and said vertical defect detect method is performed under the condition that an incident angle with respect to said surface of said bearing ring is in a range of 0 degree to 10 degree.

10. The method according to claim 7, wherein said detecting and evaluating step comprises:

rotating the rolling member about its rotation axis.

11. The method according to claim 7, wherein said detecting and evaluating step further comprises:

moving said probe so as to keep a predetermined distance between said rolling member and said probe.

12. The method according to claim 7, wherein said detecting and evaluating step comprises:

rotating the rolling member about its rotation axis; and
5 relatively moving said rolling member and said probe along its rotation axis and in a direction substantially perpendicular to said rotation axis so as to keep a predetermined distance between said desired surface of said rolling member to be measured and said probe,

10 whereby all of said desired surface of said rolling member is scanned by said probe.

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